

REMARKS

In section 3 of the Office Action, the Examiner rejected certain of the old claims under 35 U.S.C. §102(b) as being anticipated by the Melby patent.

The Melby patent discloses a racket frame 12 having vertical strings 2 and horizontal strings 3 derived from closed loop strings. The closed loop strings are endless rings which are fastened to adjustable mounting studs 4 having a threaded stud 10 and hooks 11. During stringing, a closed loop string is mounted over the hooks 11, the threaded stud 10 is inserted in a frame hole 13 of the frame 12, and a threaded nut 6 is screwed onto the threaded stud 10. This procedure is repeated for mounting the opposite end of the same closed loop string on the hooks 11 of a threaded stud 10 located on the opposite side of the frame 12, or the opposite end of the closed loop string may be mounted on the hooks 11 attached to a non-adjustable stud rigidly mounted to the frame 12. Adjustment of string tautness is made by screwing the nut 6 on the threaded stud 10. An open throat 8 of the frame 12 allows for tightening of closed loop strings.

Independent claim 14 is directed to a racket comprising a frame, a head, a plurality of transversal strings, and a plurality of longitudinal strings. The frame has a handle defining a longitudinal axis. The head is connected to the handle and defines a racket face. The head has parallel first and second transversal sides and parallel first and second longitudinal sides. The first and second transversal sides and the first and second longitudinal sides are firmly connected together at their ends such that each of the sides is substantially inflexible in relation to the other sides. The transversal strings extend between the first and second longitudinal sides and substantially cover the racket face. The transversal strings are of substantially identical length, the transversal strings run essentially parallel to each other, the transversal strings are generally perpendicular to the longitudinal axis, and at least three of the transversal strings are strung from a first single string. The longitudinal strings extend between the first and second transversal sides and substantially cover the racket face. The longitudinal strings are of substantially identical length, the longitudinal strings run essentially parallel to each other, the longitudinal strings are generally

parallel to the longitudinal axis, and at least three of the longitudinal strings are strung from a second single string.

The use of two strings is conventional in stringing an elliptical racket (see page 4, lines 10-11 of the application) and is adapted here to string the non-conventional racket of the present invention.

The Melby patent does not disclose transversal strings such that at least three of the transversal strings are strung from a first single string and longitudinal strings such that at least three of the longitudinal strings are strung from a second single string. Instead, the transversal strings disclosed in the Melby patent are strung from a plurality of strings (loops) and the longitudinal strings are likewise strung from a plurality of strings (loops).

Accordingly, independent claim 14 is not anticipated by the Melby patent.

Moreover, independent claim 14 is not suggested by the Melby patent. Indeed, the Melby patent teaches away from the invention, as recited in independent claim 14 because the Melby patent teaches that the stringing of independent claim 14 is undesirable since re-stringing of many more strings of the racket is required if a string

breaks or becomes loose, and that the stringing design disclosed in the Melby patent overcomes that undesirability.

Because independent claim 14 is not suggested by the Melby patent, independent claim 14 is patentable over the Melby patent.

Independent claim 21 is directed to a racket comprising a frame, a head, a plurality of transversal strings, and a plurality of longitudinal strings. The frame has a handle defining a longitudinal axis. The head is connected to the handle and defines a racket face. The head has parallel first and second transversal sides and parallel first and second longitudinal sides, and the first and second transversal sides and the first and second longitudinal sides are firmly connected together at their ends such that each of the sides is substantially inflexible in relation to the other sides. The transversal strings extend between the first and second longitudinal sides and substantially cover the racket face. The transversal strings are of substantially identical length, the transversal strings run essentially parallel to each other, and the transversal strings are generally perpendicular to the longitudinal axis. The longitudinal strings extend

between the first and second transversal sides and substantially cover the racket face. The longitudinal strings are of substantially identical length, the longitudinal strings run essentially parallel to each other, and the longitudinal strings are generally parallel to the longitudinal axis. At least three of the longitudinal strings and at least three of the transversal strings are strung from a single string.

The use of one string is conventional in stringing an elliptical racket (see page 4, lines 10-11 of the application) and is adapted here to string the non-conventional racket of the present invention.

The Melby patent does not disclose transversal and longitudinal strings that are strung from the same single string. Instead, the transversal strings disclosed in the Melby patent are strung from a plurality of strings (loops) and the longitudinal strings are likewise strung from a plurality of separate strings (loops).

Accordingly, independent claim 21 is not anticipated by the Melby patent.

Moreover, independent claim 21 is not suggested by the Melby patent. Indeed, the Melby patent teaches away from the invention, as recited in independent claim

21, of stringing at least three of the transversal strings and at least three of the longitudinal strings using a single string because the Melby patent teaches that this stringing is undesirable since more complex re-stringing of a racket is required if the single string breaks or becomes loose, and that the stringing design disclosed in the Melby patent overcomes that undesirability.

Because independent claim 21 is not suggested by the Melby patent, independent claim 21 is patentable over the Melby patent.

Independent claim 28 is directed to a racket comprising a frame, a head, a plurality of transversal strings, and a plurality of longitudinal strings. The frame has a handle defining a longitudinal axis. The head is connected to the handle, and the head having parallel first and second transversal sides and parallel first and second longitudinal sides. The first and second transversal sides and the first and second longitudinal sides have holes therethrough and are firmly connected together at their ends such that each of the sides is substantially inflexible in relation to the other sides. The transversal strings are strung through the holes in the first and second longitudinal sides, the

transversal strings are of substantially identical length, the transversal strings run essentially parallel to each other, and the transversal strings are generally perpendicular to the longitudinal axis. The longitudinal strings are strung through the holes in the first and second transversal sides, the longitudinal strings are of substantially identical length, the longitudinal strings run essentially parallel to each other, and the longitudinal strings are generally parallel to the longitudinal axis. The transversal and longitudinal strings are secured to the frame by at least one knot.

The stringing of a racket through holes in the sides of the head of the racket is conventional in elliptical rackets (see page 4, lines 10-11 of the application) and is adapted here to string the non-conventional racket of the present invention.

The Melby patent does not disclose string a racket through holes in the sides of the racket. Instead, the transversal strings disclosed in the Melby patent are strung from a plurality of strings (loops) looped over hooks and the longitudinal strings are likewise strung from a plurality of strings (loops) looped over hooks.

Accordingly, independent claim 28 is not anticipated by the Melby patent.

Moreover, independent claim 28 is not suggested
~~by the Melby patent.~~ Indeed, ~~the Melby patent teaches~~
away from the invention, as recited in independent claim
28, of stringing a racket through holes in the sides of
the racket's head because the Melby patent teaches that
conventional stringing is undesirable since complete re-
stringing of a racket is required if a string breaks or
becomes loose, and that the stringing design disclosed in
~~the Melby patent overcomes that undesirability.~~

Because independent claim 28 is not suggested
by the Melby patent, independent claim 28 is patentable
over the Melby patent.

Because independent claims 14, 21, and 28 are
not unpatentable over or anticipated by the Melby patent,
dependent claims 15-20, 22-27, and 29-34 are not
unpatentable over or anticipated by the Melby patent.

Moreover, dependent claims 16, 23, and 30
recite that at least a pair of the first and second
transversal sides and the first and second longitudinal
sides are curve slightly. The Examiner asserts that it
is well known that a racket deforms when tension is
applied to the strings. However, since prior art rackets
are elliptical, providing curve surfaces that straighten
out as tension is applied to the strings is irrelevant.

As far as the Melby patent is concerned, there is no disclosure in the Melby patent that would suggest the need for a curvature of the frame. Therefore, the Examiner has not made out a prima facie case of obviousness regarding dependent claims 16, 23, and 30.

Accordingly, dependent claims 16, 23, and 30 are not unpatentable over the Melby patent.

Dependent claims 17, 24, and 31 recite that the curved sides have a curvature such that the string tension of the strings between the curved sides brings the curved sides back to a substantially straight and parallel position. The Examiner asserts that it is well known that a racket deforms when tension is applied to the strings. However, since prior art rackets are elliptical, providing curve surfaces that straighten out as tension is applied to the strings is irrelevant. As far as the Melby patent is concerned, there is no disclosure in the Melby patent that the frame is made of a material that flexes when tension is placed on the strings. Therefore, the Examiner has not made out a prima facie case of obviousness regarding dependent claims 17, 24, and 31.

Accordingly, dependent claims 17, 24, and 31 are not unpatentable over the Melby patent.

Dependent claims 20, 27, and 34 recite that the transversal strings and the longitudinal strings are of unequal length, and that the tension and/or mass values of the transversal strings and the longitudinal strings are selected so that the vibrational frequencies of the transversal and longitudinal strings are equal.

It is noted that the length of the crosses (transversal strings) and the length of the mains (longitudinal strings) are not equal as shown in the art applied by the Examiner. Therefore, when equal tension is applied to the strings (assuming string mass to be equal), the crosses of the applied references will vibrate at a different frequency than the mains of these references.

Accordingly, the references applied by the Examiner do not suggest making the vibrational frequencies of the crosses and mains equal as required by dependent claims 20, 27, and 34. Therefore, the Examiner has not made out a prima facie case of obviousness regarding dependent claims 20, 27, and 34.

Accordingly, dependent claims 20, 27, and 34 are not unpatentable over the Melby patent in view of the Cecka patent, the McDonald patent, or the Svoma patent.

CONCLUSION

In view of the above, the claims of the present application patentably distinguish over the art applied by the Examiner. Accordingly, allowance of these claims and issuance of the present application are respectfully requested.

Respectfully submitted,

Schiff Hardin LLP
6600 Sears Tower
233 South Wacker Drive
Chicago, Illinois 60606
(312) 258-5500

By: 

Trevor B. Joike
Reg. No: 25,542

November 8, 2004